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## **SHOWERING DEVICE FOR THE INTIMATE REGION**

### **CROSS-REFERENCE TO RELATED APPLICATIONS**

This application is a continuation-in-part of prior U.S. Patent Application No. 10/048,731, filed January 30, 2002, which claims priority to PCT/CH00/00336, having an  
10 international filing date of June 20, 2000, which claims priority to Swiss Patent Application No. CH 1192/99, filed August 10, 1999.

### **FIELD OF THE INVENTION**

The present invention relates to a showering device for use around the intimate region  
15 and particularly to a device used for colonic irrigation as a part of colon therapy.

### **BACKGROUND OF THE INVENTION**

Many showering devices have been designed for use around the intimate region. U.S. Patent No. 3,921,635 (*Gauthier*) describes a shower head specifically designed for medical  
20 treatment which is permanently attached to a body. A hollow chamber is provided within the body. Medication in the form of a tablet or a dissolvable cartridge may be placed in the hollow chamber. To improve the spraying effect of the dissolved medication, the shower head may be attached to a rotating spraying head or a douche. Since the shower head disclosed in *Gauthier* is not provided with a housing or a housing closure, an insertion rinsing  
25 tube may not be sealably and exchangeably held to the shower head. Also, since the shower head is permanently attached to the body, it may not be removably attached to an insertion rinsing tube.

U.S. Patent No. 3,682,176 (*Kelsen*) describes a vaginal applicator having a manual control valve means to which a syringe is detachably connected. The manual control valve  
30 means serves as an adjunct to the valve means and the valves of a faucet for governing the flow of fluid, such as water, through a hose and the syringe. The vaginal applicator disclosed in *Kelsen* is not designed to be used for colonic irrigation. In addition, like the shower head

5 disclosed in *Gauthier*, the shower head described in *Kelsen* is not provided with a housing or a housing closure.

Further, the inline design of the hose, the manual control valve means, and the syringe, as disclosed in *Kelsen*, makes it impossible for the person to operate the device by himself or herself in a sitting position. The device therefore does not allow the self-insertion of an  
10 insertion rinsing tube into the person's body without polluting the hands of the person performing the insertion and his or her surroundings.

German Patent No. DE-298'00'816-U describes a shower for anal cleaning. The shower is U-shaped and is provided with an end tube having a spray nozzle. The shower is suitable only for cleaning the body and/or anal area externally. Similar to *Kelsen*, German  
15 Patent No. DE-298'00'816-U is not designed to be used for colonic irrigation.

## **SUMMARY OF THE INVENTION**

The showering device of the present invention, besides being useful for external body cleaning, is particular useful for internal body cleaning and colonic irrigation. The showering  
20 device for the intimate region comprises an insertion rinsing tube that may be removably attached and sealably and exchangeably held. The showering device for the intimate region may be used by a person without requiring the help or assistance from another person, and the insertion and the regulation of the water quantity of the showering device may be operated using only one hand via a hand-grip so that contamination and pollution of the user's hand and  
25 the surroundings may be avoided.

In one embodiment of the showering device of the present invention, the device comprises a housing in the form of a hand-grip body, a shut-off valve, a housing closure, and a head portion. The entire length of the housing is passed through by a water duct. The shut-off cock is integrally installed on the inlet side of the water duct. The outlet side of the  
30 housing is covered by the housing closure, which is integrally held on the head portion of the housing.

An insertion rinsing tube may be exchangeably and sealably connected to the water duct through an opening located on the housing closure. The insertion rinsing tube is held in a bore within the head portion of the housing by means of a seal.

5           In one embodiment of the showering device, the insertion rinsing tube is straight so that the water flow direction is inclined from the inlet side to the end of the insertion rinsing tube by an angle measuring between 90° and 180°.

          In another embodiment of the showering device, the water flow direction is inclined from the head portion to the hand-grip body by an angle measuring between 0° and 90°. In  
10   this embodiment, the insertion rinsing tube is angled, preferably by an angle that measures approximately 90°, and the water flow direction is inclined from the inlet side to the outlet side of the insertion rinsing tube by an angle that measures between 90° and 180°. Preferably, the angle measures between 120° and 150°. The corresponding supplementary angle, which is the angle between the outlet side of insertion rinsing tube and the inlet side of the housing,  
15   measures between 0° and 90°, and is preferably between 30° and 60°.

          The insertion rinsing tube may be attached to a shower head and is preferably made of metal, and is preferably chromium plated.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

20           Specific embodiments of the present invention are described in detail below and illustrated in the drawings, in which:

          Figure 1 shows a longitudinal sectioned view of a showering device of the present invention having a straight insertion rinsing tube;

          Figure 2 shows a longitudinal sectioned view of a showering device of the present  
25   invention having an angled insertion rinsing tube; and

          Figure 3 shows a sectional partial side view of the insertion rinsing tube of Figures 1 and 2, having a shower head removably attached thereto.

## **DETAILED DESCRIPTION OF THE INVENTION**

30           The showering device of the present invention may be constructed in a variety of different embodiments. Figure 1 shows an embodiment of the showering device 20 comprising a housing 5 in the form of a hand-grip body 7, a shut-off valve 6 located in proximity to the inlet side 10 of the housing 5, a housing closure 2 located on the outlet side 11 of the housing 5, and a head portion 8 being formed as an integral single piece. The entire  
35   length of the housing 5 is traversed by a water duct 9. The shut-off cock 6 is integrally

5 installed on the inlet side 10 of the water duct 9. The shut-off cock 6 regulates water flow through the showering device 20. The outlet side 11 of the housing 5 is covered by the housing closure 2 which is integrally held on the head portion 8 of the housing 5.

As shown in Figure 1, an insertion rinsing tube 1 may be exchangeably and sealably connected to the water duct 9 through an opening 12 located on the housing closure 2. The insertion rinsing tube 1 is held in a bore 4 in the head portion 8 of the housing 5 by means of a seal 3 located within the head portion 8. The bore 4 receives the insertion rinsing tube 1, which may be exchangeably and sealably held by the water duct 9.

In the embodiment shown in Figure 1, the insertion rinsing tube 1 is straight so that the water flow direction is inclined from the inlet side 10 to the end of the insertion rinsing tube 1 by an angle  $\alpha$  of more than  $90^\circ$  but not exceeding  $180^\circ$ .

Figure 2 shows another embodiment of the showering device 30 comprising a housing 5 in the form of a hand-grip body 7 and inclined head portion 8 being integrally formed as one piece. The water flow direction in this embodiment is inclined from the head portion 8 to the hand-grip body 7 by an angle  $\alpha_1$  more than  $0^\circ$  but less than  $90^\circ$ . A shut-off cock 6 is integrally installed on the inlet side 10 of the hand-grip body 7, while a housing closure 2 is located on the outlet side 11.

As shown in Figure 2, the insertion rinsing tube 1 is also exchangeably and sealably held in a bore 4 in the head portion 8 of the housing 5 by means of a seal 3 located within the head portion 8. In this embodiment, the insertion rinsing tube 1 is angled, preferably by an angle  $\alpha_2$  that is approximately  $90^\circ$ . The water flow direction is inclined from the inlet side 10 to the outlet side 11 of the insertion rinsing tube 1 by an angle  $(\alpha_1 + \alpha_2)$  of more than  $90^\circ$  and less than  $180^\circ$ . Preferably, the angle  $(\alpha_1 + \alpha_2)$  between is  $120^\circ$  and  $150^\circ$ . The corresponding supplementary angle  $\beta$ , which is the angle between the outlet side of insertion rinsing tube 1 and the inlet side 10 of the housing 5, equals  $[180^\circ - (\alpha_1 + \alpha_2)]$ . Angle  $\beta$  is more than  $0^\circ$  but less than  $90^\circ$ , and is preferably between  $30^\circ$  and  $60^\circ$ .

The insertion side of the insertion rinsing tube 1 is generally rounded at its edge. However, as shown in Figure 3, the insertion rinsing tube 1 may be attached to a shower head 17. The shower head 17 may be used to soften the jet stream of the rinsing water.

In general, the housing 5, the housing closure 2 and the insertion rinsing tube 1 may be made of plastic injection mould. The insertion rinsing tube 1, however, is preferably made of

5 metal and chromium plated. Such metal material complies with the most stringent hygiene requirements and may be easily cleaned.

An existing shower head hose, for example, may be used to supply water via the shut-off cock 6 located on the housing 5. The shut off cock 5 is opened for the inner and outer washing process only when the insertion rinsing tube 1 is readily held, while an individual is  
10 sitting on the water closet or bidet, under the body in an upright manner.

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